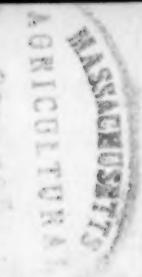


AMERICAN BEE JOURNAL

43d Year.

CHICAGO, ILL., DEC. 10, 1903.

No. 50.



Some Texas Folks and Things Apiarian.

(See page 789.)



No. 1.—Mr. and Mrs. H. H. Hyde.



No. 2.—Working with Holy Land Bees.



No. 3.—Apiary in a Mesquite Grove.



No. 4.—Apiary Among Spring Flowers.



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DR. C. C. MILLER, E. E. HASTY, EMMA M. WILSON

IMPORTANT NOTICES.

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The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "dec03" on your label shows that it is paid to the end of December, 1903.

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National Bee-Keepers' Association

Objects of the Association:

- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

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A Celluloid Queen-Button is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.

The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it. Price, by mail, 6 cents; two for 10c; or 6 for 25 cents. Send all orders to the office of the American Bee Journal.



Some Good Clubbing Offers.

As this is the time of year when most subscribers renew their subscriptions, we wish to call special attention to the following, which we are sure will commend themselves to all:

No. 1—	The Bee Journal and Dr. Miller's "Forty Years Among the Bees" (book alone, \$1.00).....	Both for \$1.75
No. 2—	The Bee Journal a year and Prof. Cook's "Bee-keeper's Guide," (book alone, \$1.20).....	" 2.00
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No. 4—	The Bee Journal a year and Doolittle's "Scientific Queen-Rearing," (cloth bound) (book alone, \$1.00)....	" 1.75
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No. 6—	Bee Journal a year and Standard Untested Italian Queen (mailed in May or June, 1904) (Queen alone 75c)	" 1.50
No. 7—	The Bee Journal a year and a "Novelty Pocket-Knife" with your name and address on it (knife alone, \$1.25)	" 2.00
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Your Name and Address on one side—Three Bees on the other side.



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The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a long time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate, as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00). We will club the Novelty Knife and the Bee Journal for one year, both for \$2.00.

GEORGE W. YORK & CO.

*Please allow about two weeks for your knife order to be filled.

Chicago, Ill.

AMERICAN ESTABLISHED IN 1861 BEE JOURNAL

THE OLDEST BEE-PAPER IN AMERICA

43d YEAR.

CHICAGO, ILL., DEC. 10, 1903.

No. 50.

Editorial Comments

The National Election this Month.

During this month the members of the National Bee-Keepers' Association will be called upon to vote for several directors and a general manager, whose terms of office expire with the end of this year.

We believe it is a good thing to have the directors scattered over the country as widely as possible. It would be better, we think, if there were only one director in a State, no matter what the membership of any State is, as the Association is National, not only in name, but in influence and in extent.

Canada should be represented on the Board of Directors by one member, at least. Mr. Wm. McEvoy has been prominently mentioned. We hope he will be elected.

But each voter should remember that he has the right to vote for any member he pleases, regardless of what anybody else may say.

Honey Superior to Sugar as a Food.

Dr. J. H. Kellogg, the well known medical authority, has given honey a strong endorsement in Gleanings in Bee-Culture. For the sake of the health of the public at large, it would be a fine thing if it could be copied by all the papers in the land. He says:

I consider honey much preferable to cane-sugar as a food. It is practically a fruit sugar, and is ready for absorption. Eaten in moderate quantities it ought to tax the digestive organs much less than cane-sugar, and is to be commended.

Many persons ought to be able to utilize honey who can not use cane-sugar. Adults often lack the power to digest cane-sugar. Cane-sugar is chiefly obtained from grasses and roots. It is a sugar adapted to herbivorous animals. One of the four stomachs of the cow secretes a ferment which is capable of digesting cane-sugar. Digestion of cane-sugar converts it into honey, so honey is practically cane-sugar already digested.

Malt sugars are best of all, as they are adapted to the human digestive apparatus, being the natural result of the action of saliva on starch. I think maltose is preferable to all sugars; but honey comes next, and I frequently recommend my patients to use it when they do not find it convenient to use malt sugars. So I consider that you and your busy bees are engaged in good missionary work, and you have my hearty sympathy. Knowledge in health-lines is increasing at a very rapid rate these latter days.

What is a Bee-Scout?

Some readers may wonder why such a question is asked, because they are familiar with the word, and have never heard it used with any other meaning than that of a bee going out in advance to select a place for the future home of a swarm. The dictionary confirms this view.

It appears, however, that in England the name is applied to those bees which are on the lookout against intruders, as described by a writer in the British Bee Journal in these words:

There seems no reasonable doubt that the duties of the scouting bee are as clearly defined and deliberately assumed as are those of the sentinel, though the elusiveness of her movements, owing to the fact that they have to be performed on the wing, may lead to the notion that she is nothing more than a chance member of the community

whose temper has become upset, and habits of industry in consequence temporarily diverted from their usual peaceful course. In spring and early summer it is true her numbers are insignificant, and her special duties can then scarcely be said to have been taken up in earnest; but as the season advances the ranks of the bee-scout become recruited, and their attitude towards supposed intruders more aggressive. This remark may not wholly apply to cases where undue irritation has been brought about by accident or awkward handling, but in a well-managed apiary it is interesting to note the strictly limited area within which the aggressive attentions of the bee-scout are observable. Her function is to circle around within a few yards of the hive, and, unless actually following up an attack, her threatening attitude is scarcely exhibited beyond the prescribed limits. To the writer it appears that the zone of the scout's greatest activity lies within a distance of perhaps from two to seven or eight yards of home, and what is more striking, she seems, as a rule, to pay little attention to any one standing close against the hive, as, for instance, in an act of manipulation.

It will be seen that a class of bees is spoken of entirely different from those called scout-bees in this country. Indeed, it is a question whether heretofore the bees spoken of by the British writer have ever been considered as a separate class; and yet he may be right in thus speaking of them. Any experienced bee-keeper will recall one or several cross bees following him persistently about the apiary, perhaps all day long. Are not such bees detailed specially for that duty? But it will hardly do to call them scout-bees, so long as that term is already in use for another purpose. Shall they be called *pickets*? or is there some better name?

Sense of Location in Bees.

This has attracted a good deal of attention. Some have thought them possessed of a special sense that allows them to return with unerring certainty from any point of the compass directly to their own home. In finding their home they are most assuredly not entirely guided by the appearance of that home itself, for if a hive in an apiary be removed ten feet from its location, the returning field-bees will never find it, although its appearance be exactly the same as before removal. C. Krah, in Praktischer Wegweiser, argues that there is no special sense in the case, that it is a matter of memory pure and simple. Observation and reflection help to establish this view.

Note the careful manner in which a bee marks its location when it takes its first flight, as also when it voluntarily changes location at swarming, or when changed a considerable distance to a new location. At first thought it might appear that it is merely noting the appearance of its hive, but its constantly widening circles favor the belief that it is taking an inventory of a wider circle of objects, with its hive as a central point. After the winter's confinement, or after a considerable confinement at any other time, a fresh marking takes place as if to refresh the memory. Then, after the marking is carefully done, no time is wasted in reconnoitering to find the right place on subsequent flights, but depending upon its memory for the appearance of surrounding objects, perhaps for a great distance in all directions, it goes in a bee-line direct to the central point of the objects previously noted.

Improvement of Stock.

Under this heading, in the American Bee-Keeper, with no comment unless it be the sub-head, "A New Idea as to Means of Facilitating this Desirable Result," appears the following in an article by G. B. Crum:

I have combs built part way down and give these to queenless colonies to start dummy cells on the lower edge, which I use by putting in larvae, changing them again in from 12 to 20 hours; that is, taking

out those first inserted and substituting a new batch. "Oh, that's nothing new," you say. Now hold your tongue and wait until I am through.

My cell-building colonies are broodless—composed of bees not one of which is under ten days old. You say, "Why go contrary to all orthodox rules?" Because young bees like 'pap' better than old ones. To satisfy yourself upon this point, just give a frame of eggs to a colony with no bees under ten days old, and another to a colony which has just been deprived of all brood and eggs. You will find that the former are much better fed than the latter.

Now, for my plan of selecting queen mothers: I select a queen that has just begun laying, regardless of what she may prove afterwards, as to color, etc. I closely follow up this method from generation to generation, from April to October. Thus, it will be seen, it is possible to get ten generations in one year—40 generations in four years—which is about the extreme limit of a queen's life, which is used as a drone-mother. Now, observe that it is thus possible for a queen to be a half-sister to her fortieth grandmother. You inquire, "Well, what do you gain by all this?" Well, I gain a long stride ahead of Nature, and, I believe, a queen whose workers have few equals and no superiors.

This is interesting, if for nothing else, for its audacity in going square against all established precedent. Bees under ten days old are chosen to rear queen-cells because "young bees like 'pap' better than old ones." Are we to understand that "pap" is prepared by the older bees and fed to those under ten days old? Is there any proof for this new doctrine? Mr. Crum says that by taking queen-mothers at random, only so they are young, he gains a long stride ahead of Nature. One would be better satisfied to have something beyond the mere assertion that there is great gain. Is there any gain beyond that of rearing from young queens? and is that a gain at all?

Taking the Candying Notion Out of Honey.

H. G. Quirin gives, in Gleanings in Bee-Culture, an account of some experience in the matter a dozen of years ago. He says:

"In June, or when the first white-clover honey came in, we extracted a gallon, which we wished to use for making queen-candy. As the honey was rather thin, we placed the jar on the reservoir of the kitchen stove, with the injunction that it was to stay there till we removed it. Well, it stayed there for perhaps two months, the temperature varying all the way from 75 to 150 degrees, or perhaps a little higher at times. This honey was kept for two years, and part of the time in winter, when it went as low as zero, but it never candied. At present we keep our honey in five or six 60-pound cans blocked up back of the kitchen stove for several weeks before bottling. We believe this will keep it from going to candy until the grocer sells it. We find alfalfa honey quite stubborn. You can melt this honey in the oven, and it's ready to sugar the next day or two."

This is interesting, not because new, but because it corroborates the view that honey kept for a sufficient length of time at a high temperature, whether it be comb or extracted, will remain free from granulating. Not only that, but comb honey thus treated will stand zero freezing without cracking across the face of the comb, as honey generally does.

If you have a garret up against the roof, where the heat is suffocating on warm days in summer, try putting some honey there, leaving it throughout the summer, and then see how much better it will stand the cold of the following winter.

A Peculiarity of Eucalyptus Trees.

At least of some of the characteristics of eucalyptus trees can not fail to impress those who see them for the first time. The leaves of the lower part of the tree differ in size and color from those on the rest of the tree. There is not merely a little difference, but the difference is striking. Neither is there a gradual shading from one kind to the other, but an abrupt change, so that one seeing a tree of the kind for the first time is likely to think some small bush with larger leaves is growing at the foot of the large tree.

Cold Water Introduction of Queens.

The Australian Bee-Bulletin says: "A Frenchman, in introducing queens, puts the caged queen in the hive. Next day he takes the cage (queen included), puts it in a cup of cold water, and then turns the wet queen loose. He says he never lost a queen in this way." However French may be the man who introduced that custom, he is none other than our own Adrian Getaz, down in Tennessee.

The Premiums we offer are all well worth working for. Look at them.

Miscellaneous Items

Clipping Queens has become quite the fashion in this country, but the British Bee Journal says it has never found favor in England.

Math. W. Krudwig, an Iowa bee-keeper, while working around his bees the past season, was stung on the tongue by a bee. His tongue swelled up terribly, and was unable to talk for several hours. He was obliged to seek medical aid to relieve the pain and swelling.

Mr. Wm. Ross, of Ventura Co., Calif., passed through Chicago recently on his way home, after spending a week or two in Canada, where he used to live before going to a sunnier clime. Mr. Ross is the bee-keeper who had a summer tent-cottage on Catalina Island. He helped make our short stay there pleasanter.

The Chicago-Northwestern Convention was held last Wednesday and Thursday as announced. It was a "great meeting"—so "they say." About 100 bee-keepers were in attendance, and from beginning to end it was one continuous stream of good bee-talk. We believe it will make one of the very best reports that was ever published. It was all taken in shorthand by and for the American Bee Journal. So look out for the report in these columns later on.

Secretary H. C. Morehouse, of the Colorado Bee-Keepers' Association, writing us Nov. 28, said this concerning their annual meeting held in Denver last month:

"The meeting was the best one ever held in the name of the Colorado Association, and the subjects presented were of great interest to bee-keepers throughout the West. The spirit of absolute harmony prevailed at all of the sessions."

We expect to publish a report of the Colorado convention soon. It is always one of the best of the whole year. Those Colorado bee-keepers are great folks.

Little Miss Hope H. Able, of Northampton Co., Pa., wrote recently, and her letter appeared on page 746. Referring to it, she writes again:

MY DEAR EDITOR:—I was glad to see my letter in the American Bee Journal, but very sorry to see that you had a mistake in it. You said we increased from 7 to 8 colonies. It should have been from 7 to 18 colonies.

I am 9½ years old.

From your friend,

HOPE H. ABEL.

We are glad to make the correction, for increasing from 7 colonies to 8 is quite different from 7 to 18.

Mr. Gus Dittmer, who is a Wisconsin bee-supply dealer and comb foundation maker, thinks that in referring to the Weed process of sheeting wax, as we did on page 739, we may possibly have done him an injustice. We simply said that "the bulk of the comb foundation sold to-day is made by the Weed process," which "will not work adulterated wax." We understand that while Mr. Dittmer's process may be different, nothing but pure wax goes through his sheeting machines also.

Mr. Dittmer is an honorable manufacturer and dealer, as his increasing trade easily testifies.

Mr. H. H. Chase, a bee-keeper of Manistee Co., Mich., sent us the following clipping from a local newspaper, dated Nov. 23, which is interesting even if not "all about bees":

"H. H. Chase has recently found two mounds on the north side of Bear Lake from which he obtained two skeletons, a beveled stone instrument, two pieces of ancient pottery, about 30 bone beads, and a few clippings of black flint. One bone of the arm had evidently been broken and healed. The shape and size of the skulls varied, one having double teeth all around."

"These specimens are unmistakably of a prehistoric race, as the manner of burial indicates, by an upright kneeling position facing the water and the west, and they have, in all probability, been buried from 500 to 1000 years. These findings, added to other tools, axes, arrowheads, etc., make a choice collection, which will doubtless find its way to a museum later."

Sketches of Beedomites

HOMER H. HYDE.

Homer H. Hyde, whose picture with that of his bride adorns the first page of this number of the American Bee Journal, was born in Dawsonville, Ga., May 7, 1881. At the age of three years, his father went to Texas, following his trade of a carpenter, and also farming for some years.

At the age of about 10 years, through his good mother's influence, his father bought his first colony of bees, and from that day to this, "Homer" has not ceased to have an active interest in bees, which seems to grow stronger as the years go by.

Mr. Hyde has read about all there is published on the subject of bees, taking all the aparian papers regularly, besides spending a large part of his time the last ten years right in the apiary with the bees. The past season, however, he was kept pretty well closed in on account of the demands of the office-work, but he hopes to arrange matters so that another season he will be able to spend more time with the bees again.

Mr. Hyde secured his education in the common schools of Texas, and also took one course in Taylor University, at Waco, Tex. He was married June 18, 1903. His wife was born in Conway, Ark., Aug. 12, 1883. She is a lineal descendant of John Adams. Mrs. Hyde received her education in the high school of Floresville, Tex., and a little later was won "for better or for worse" by H. H. H. Mrs. Hyde is very much interested in her husband's work, and in the bee-industry, though it is said she is very much afraid of the bees themselves. However, Mr. Hyde thinks if she succeeds in holding the reins on him, she will have done her part. And that's so!

Both Mr. and Mrs. Hyde are members of the Missionary Baptist church, and are active in its services.

Mr. Hyde was one of the car-load of bee-keepers that crossed the continent recently to attend the Los Angeles convention of the National Bee-Keepers' Association, of which he is a member. We thus had opportunity to get acquainted with him. If all the other Texas bee-keepers are as energetic and enthusiastic as he is, we wouldn't object to forming the acquaintance of some more of them. We don't know what the middle initial "H." stands for in his name, but it might very appropriately be Homer *Hustler* Hyde.

Referring to three of the pictures shown on the first page, Mr. Hyde wrote us as follows:

MR. YORK:—Enclosed are some partial views of two of our apiaries. In No. 3 you will notice that the apiary is situated in a grove of mesquite trees. However, this ground was a great mass of prickly pear and other growth, so that the open space is literally hewn out. In the lower part of the picture you will see some of the pear, showing its outline. The men in the apiary are helpers, and constitute our force, with the exception of myself. The men are, from left to right, O. P. Hyde, L. B. Wiseman (visitor), Wm. Sedding, Milton West, Emmett Hyde, and Chas. Wurth. We have 100 colonies of bees in this apiary.

No. 4 is a view of another yard taken some rods from the bees. This is taken to show the profusion of wild spring flowers that cover the pastures everywhere at that season of the year. In this yard we had neglected to use the scythe for about three weeks, and you observe the results. The shrubs in the picture are mesquites. We have 90 colonies in this yard.

No. 2 is a picture taken in our Holy-Land apiary, showing our men working with a full colony of pure-bloods without veil or smoke. These men are, from left to right, E. J. Carlton (foreman of apiarists), Emmett Hyde, and Chas. Wurth.

These three pictures were snapped by myself, and are among my first efforts in amateur photography.

We have about 1100 colonies of bees, located in 10 apiaries, from 1 to 9 miles from home. Each location will stand easily 200 colonies, and we expect to increase to that number at each yard. Our cold, late spring knocked us out on catclaw honey this year, giving us a frost on April 28, coming at just the time the catclaw was beginning to yield.

An average crop of honey for this locality is 100 pounds of bulk comb honey. We have the largest number of bees kept by any one company in the State. We are expansionists, and expect to increase our bees as fast as possible. Our methods of management will be given later on, when the writer has the time to write them up.

H. H. HYDE.

Convention Proceedings

THE LOS ANGELES CONVENTION.

Report of the Proceedings of the 34th Annual Meeting of the National Bee-Keepers' Association, Held at Los Angeles, Calif., Aug. 18, 19 and 20, 1903.

(Continued from page 775.)

The next on the program was a paper by Homer H. Hyde, of Texas, on the

PRODUCTION AND SALE OF BULK COMB HONEY.

A few years ago bulk comb was practically unknown, but to-day there is scarcely a bee-keeper in the United States that has not heard of it, and how it is produced. It is now the principal product of the southwestern Texas bee-keepers. Its production is rapidly gaining ground not only all over Texas, but is gaining a footing in Nebraska, Colorado, Utah and California.

Since the publication of my articles in the bee-papers, inquiries have come from all over the country, and many of them state that they have already commenced the production of bulk comb honey. The production of the article will soon be universal.

The demand from the consumers for this article is rapidly growing, and is keeping far ahead of its production, and to this fact the bee-keepers are rapidly catching on. There are many reasons why it is gaining a hold with both the consumer and the producer, especially the former. When he buys a can of bulk comb honey he feels sure that he is getting a pure sweet, just as the bees made it; he feels that he is getting full weight; and he knows he has bought it at a less price per pound than he could have bought section honey. Then he has his honey in a nice bucket where it can not break or lose out when cut in two; and when he has eaten out the honey he has a useful pail left.

These are some of the reasons why the consumer prefers bulk comb honey to section honey. I am talking of the majority of the people. Of course, there are the wealthy who will always buy a limited quantity of section honey because it is high in price, and has to them a fancy look.

Now, let me quote Editor Root's foot-note to one of my articles:

"In my southwestern trip of a year and a half ago, I was fully convinced that bulk honey, or chunk honey, was getting to be more and more in vogue, both among progressive bee-keepers and the consumers themselves. Still, I found some bee-keepers who thought it would be better to educate the consumer to the use of section honey, believing there would be more money in the production of such an article. But I must admit that Mr. Hyde has advanced some very strong arguments in favor of chunk honey; and why should we bee-keepers not cater to the various demands? One locality will use large quantities of candied extracted honey; another will use nothing but crystalline liquid extracted; still another, fancy comb honey; still others dark honey, almost as black as blackstrap itself. Cater to what the locality calls for."

Yes, friends, let's give people what they want, and if they want bulk comb honey give it to them. Simply produce some of the article and take it around to your customers and give them a choice of the two honeys—section or bulk comb honey—and your customers will soon all call for the latter. Now, gentlemen, if this can be done, why not do it? We are sure it is the most profitable, as all will admit.

Bulk comb honey is produced in either full bodies or shallow Ideal supers. If the former is used it is hardly practical to fasten in full sheets of foundation, as the frames can not be wired, because we expect to cut the honey out; but with the Ideal frames we can use full sheets if we so prefer. Ideal supers and frames are preferred generally because they are not so large, are not so heavy to handle, they are nearer the right amount of room to give a colony

at one time, and they can be freed of bees much quicker than can full bodies. To free them of bees we simply smoke down between the frames well, and then pry the super loose and jounce it, when it will be found that most of the bees will fall out. They can then be stacked up and a hole left at the top, when, in two or three hours time, the last bee will have left the supers.

Then, again, the supers and frames are nice for extracted honey, should the bee-keeper in any event desire to use them, and, in fact, in putting up bulk comb honey it requires about one-third extracted honey with which to put the comb up.

In packing bulk comb we cut out the comb nicely and place it in the cans, and afterwards pour in extracted honey to cover the comb and to fill up the crevices, and, in this way, about one-third extracted honey goes in, and it must be remembered that this extracted honey goes in at the comb-honey price. It has been found both practical and profitable to produce both comb and extracted honey in the same apiary, and, in fact, on the same hives at the same time, for many have found that it pays them to have one super of combs on top of the regular brood-nest, so that the queen may fill it with brood before the honey-flow, if she likes, and when the flow comes these supers catch the first nectar, and as soon as the flow is on, and the bees have commenced to secrete wax, this super of combs is lifted and the empty frames of foundation placed between them and the brood, which is the most effectual way of baiting bees into the supers; and then it will be found that where colonies are so worked swarming is kept in check, if not entirely prevented, the queen is left in entire possession of the regular brood-nest, and by the time the flow is over the brood will have hatched from the shallow super of combs, and the bees will have filled it with extracted honey, and this is just what we will want in putting up our comb honey, as we have already shown that at least one-third the honey must be extracted with which to pack the comb. It has been demonstrated, time and again, that bees will store all the way from 50 percent to 100 percent more honey when worked for section honey, and many believe (the writer included) that where the bees are worked as outlined above, nearly, if not quite, as much bulk comb honey can be produced as could be produced of extracted honey alone, and especially does this hold good where the localities have fast flows of honey, in which a great amount of wax is always secreted whether there are any combs to build or not.

This year's experience confirms all the above, and more, and we are more than ever convinced of the advantages of producing bulk comb honey. In addition I will say that we would advise all to use full sheets of foundation in the supers at all times, and we more than ever recommend the Ideal, or $5\frac{1}{2}$, super for the production of bulk comb honey.

We will now show the relative cost of bulk comb to section honey. When we buy bulk comb supers and frames we have bought them to use for years. When we buy sections they are for only one season's use, whether they be filled with honey or not. Then we have to have costly separators, followers, etc., that soon give out, to be replaced. When we go to ship we have to have costly glass-front shipping-cases, and these cases in turn packed in crates for shipment. When we pack section honey we have to take lots of time and patience to scrape the sections. When we pack bulk comb honey we buy cases of cans and cut the honey out into them. When we get ready to ship we have to pay a high rate of freight on section honey, and more, run the risk of having a good part of it badly damaged or destroyed all together. When we ship bulk comb we get a low extracted-honey rate, and have the assurance that it will go through as safely as if it were extracted honey. When we go to prepare supers for the harvest, all we have do to our bulk comb supers is to scrape the top-bars a little and fasten in the foundation; but with section honey we have to make up shipping-cases and sections, and spend a long time putting the foundation in just right.

Again, you will find that there is much less work attached to the production of bulk comb honey than there would be if producing section honey. I believe that the spring and summer work is reduced about one-half.

For fastening in the foundation in the shallow frames, we use a machine that always puts the foundation in right and true, and securely. The machine works on the hot-plate principle, said plate being kept at the right temperature by a gasoline burner. This machine is also adapted for use in putting foundation in any kind or sized frame having the Langstroth length. However, the majority do not have these machines, but they can put the foundation on the top-

bars with melted wax. Simply keep a can of wax hot, and then use a spoon with which to pour a small quantity along the edge of the foundation, which is first placed squarely in the center of the top-bar.

When the supers are put on, the bees go to work in the bulk comb supers at once, and in a big cluster, and thereby forgetting to swarm; but with section supers the bees have to be carefully baited and coaxed into the supers, and when they get there they are cut off into 24 or more small compartments, which they have to try to keep warm, and to get them sealed out to the wood we have to crowd the bees, and thereby losing honey. By crowding we lose equally as much honey as we do when the supers are first put on, by reason of the bees being slow to enter the sections. Just how much honey is lost by the bees being slow to enter the sections, how much is lost by crowding, and how much is lost by swarming, I am unable to say, but it is considerable.

You may take the items in the production of the two honeys from beginning to end, and there is not an item that is not in favor of bulk comb honey, except solely in the matter of price received; but, friends, where unbiased men have tried the production of the two honeys side by side, and carefully taken into consideration every factor, they have invariably found that they can make at least 60 percent more money producing bulk comb, and many have placed the percent much higher.

There is another fact: Not one of the men who once quit section honey has gone back to it. We were ourselves large section-honey producers several years ago, but have been converted, and have disposed of most of our section-honey supers, and to-day have a large pile of them awaiting a purchaser.

You may say, I have no trade or demand for bulk comb honey. I will say that all you have to do is to produce it and offer it for sale, and you will soon have a trade that nothing but bulk comb will satisfy. You may say, I will have to ship my honey, and, what then? There is no market for this new product. I will say, take your honey to the cities and offer it yourself, and you will find a ready and appreciative market, and one that will next year demand more bulk comb, and the grocerymen will have to order their supplies from you. There is no question but that a market can be found. The bee-keepers of Texas have found a market for more than they can produce, and I take it that the bee-men of other States have the same intelligence and the same get-up-and-get that the Texas bee-men have.

The packages used in putting up in this locality are now most largely 3, 6, and 12 pound tin friction-top pails that are put up in crates holding 10 of the 12-pound cans, 10 of the 6-pound cans, and 20 of the 3-pound cans. There is also some demand for bulk comb in 60 pound cans, two in a case, the cans having 8-inch screw-tops. These are sometimes ordered where the buyer desires to put the honey into glass packages for a fancy trade.

The question has been asked me, "How about it when the extracted part candies?" Well, you will either have to dispose of the honey before it candies, or teach your customers that there is no finer dish on earth than a fine grade of candied bulk comb honey. Our Texas trade does not object to candied honey in the least, as it has learned that honey is really better in its candied state. I fully realize, however, that this propensity to candy will be one of the drawbacks to its production in the North, and so would advise all to go slowly until they have a ready market for it before cold weather, or until they can teach their customers that it is really better candied.

We have lately "caught onto" a plan to prevent the candying of bulk comb honey, and that is to put up the comb in extracted honey that has been well heated, and seal up the cans with paraffine while the honey is yet hot, and we believe that it will not granulate under one year, and that is the opinion of Mr. Boyden, also. However, Mr. Boardman, of Ohio, has been drawn to the bulk comb idea, and has gone to work to find a way to keep it, and keep it just as taken from the bees. We hope he will be successful.

Some have asked me where the cans can be secured, and I will say that all are made by the American Can Co., but call for the cans made for their Texas honey-can trade. Now, in lieu of the regular cans you may use for the home trade, lard-pails, or Mason jars, which are all right, and perhaps better, as the cans are made primarily for the shipping trade.

I wish to refute the statement made that the production of bulk comb honey was the old-fogey way of honey-production. I assure you that it is not, and that it requires as

much skill and as fine a grade of honey as it does for section honey. I also assure you that the consumers are behind this move, and that it is only a question of time when the production of section honey will have almost disappeared.

Let me quote Editor Root as follows:

"Chunk comb honey is somewhat in disrepute, it is true, from the fact that it used to represent the product of the old box-hive, and was a mixture of everything—old combs, dead bees, pollen, propolis, wax-worms, light and dark honey—in fact, a little of everything that may come from an old-fashioned box-hive. Bulk comb honey, as Mr. Hyde would have us call it, represents an entirely different product—the very best table honey, being a mixture of the best extracted and the whitest comb honey. Some of my chance acquaintances have spoken in glowing terms of the 'real honey' of 'father's table,' as if that in sections were manufactured. To argue with them that the latter is just as pure is almost a hopeless task. Sometimes I think we might just as well satisfy their whims by giving them what they will accept, and I do not know of anything very much nicer than clean, sparkling extracted honey, of good quality, having chunks of delicious comb honey mixed in it of the same grade and quality. When such goods can be displayed to the consumer, and he *knows* it is all honey, he very likely would take it in preference to either comb or extracted separate."

"A correspondent near Oakland, Calif., once went out and peddled some of his very white comb honey in tall sections among the wealthy class. They would have none of it. Some of them were from 'Down East.' What did he do? He went home and cut that honey out of the sections, and mixed in it a nice grade of extracted, and sent another man around with the goods. The same people accepted that at once. Why, that was honey, just like that used years ago on 'father's table.' Of course, they could easily sample it—something they could not do with the pearly-white comb honey in sections; and the mere taste of it was enough to assure them that it was all right."

Now, friends, I have told you about all that I can think of on the subject, and if there is anything further you would like to know, kindly ask me, and I will answer to the best of my ability.

H. H. HYDE.

Mr. Dadant could not be present at this session, and had no paper in response, but authorized Secretary York to state for him that Mr. Hyde's paper had been read by him, and that he agreed most wholly with what Mr. Hyde had said; that he had been very busy, had not had time to reply, and that he was almost fully in sympathy with Mr. Hyde's views.

W. R. Woods—In shipping with these cans, do you find any difficulty with the covers flying off? In case the goods should be shipped bottom side up, what holds the cover on?

Mr. Hyde—This is known as the "friction top" can. It goes on tight; the covers of the cases go squarely on top of these, and upside down, or any other way, the shipment goes through in perfect order. We have shipped something like 5000 pounds of honey in 3, 6, and 12 pound cans, and have not had a single complaint of honey not arriving in perfect order.

L. S. Emerson—I would like to ask if you use a queen-excluder, and where?

Mr. Hyde—We have not used a queen-excluder for the last five or six years, from the fact that we do not have on the comb-honey supers until we have the best honey-flow. When the main harvest comes, the flow is so rapid the queen has no opportunity to lay in the cells.

Mr. Carter—I have had 25 or 30 years' experience. I wish to say I am not a member of the Association, have not been an extensive bee-handler, yet I have had experience since I was about 16 years old. Some 25 or 30 years ago I took a notion I would like to get a few colonies of bees, and the next year I found myself with about 15 or 20, and one of the best yields of honey I ever witnessed. It came abundantly. I had no extractor, and hardly knew how to handle my honey. At that time foundation was introduced. I put in the foundation, for, as the gentleman indicated, they did not have time to build their comb, and they just filled the foundation in two or three days, the whole of the super. I used no section frames. Then the question was, What to do with my honey? I bought what are called butter-buckets in the East. We had nice, clean, wooden butter-buckets which I filled with the comb honey, and put extracted honey in to fill the spaces; then put the cover on tight, and there was a bail to handle it. I sold the honey at the highest price for comb honey. It went like hot-cakes. It was something new. Every one would say, "How beautiful!"

The comb honey was quite level with the top of the bucket. Since I came to California I have tried to start in the chunk honey business again, but found it was difficult to get comb, and yet I have gotten some, and have put that into little buckets. You can put your business card on the pail, and it is called "White Mountain Chunk Honey." It is beautiful white honey, filled even full. In regard to shipping, you can have (I am telling you from theory rather than practice) tight covers fit so well there is no leak to it, and on top of that another cover. I sell sometimes a little honey to my neighbors; I do not ship at all. But as soon as a lady looks into the bucket, she says, "I want one of these." It seems to take. She knows when she gets a section of comb honey that she gets 12 to 14 ounces. They do not weigh over 14 ounces at any time, and when she has taken off the wood and everything else, she gets 12 ounces. When short weight, as they frequently are, she gets only 10 ounces. But in this way she gets just as beautiful honey as in sections, and gets full weight. The bulk honey sells two to one with me.

A. I. Root—25 or 30 years ago there was a big trade on comb honey put up in glass jars—not in Mason jars, but more largely in tumblers. A good deal of it was glucose, and that threw it into disrepute. I trust people have forgotten about glass-tumbler honey with a little piece of comb and a good deal of glucose in it. There was a law against it passed in New York State, I think. They then put up comb honey—a small piece—and surrounding this was a liquid they called "corn syrup," and when they were taken to task about it they said the honey granulated. The whole matter got into disrepute. I remember distinctly, as much as 30 or 35 years ago, buying a stock of honey in barrels; I took it home and put it in Mason jars. I could not get enough of it. But when the cold weather came on, and it began to candy, that set us back. Last February, I think, while I was in Cuba, Mr. W. W. Somerford had quite a fever for bulk comb honey. He was buying 5-gallon cans. He told me he could get more for his honey in 5-gallon cans than for his finest section honey, and he was preparing to fill up his cans with this honey. I did not find out how it turned out, but, since then I find, for some reason or other, his market had "let up." He was doing a "land office" business there last February. There was no "corn syrup" about that.

Emerson T. Abbott—I wanted to ask Mr. Hyde in regard to honey graining in Texas. In our country it grains. It seems to me, in our climate, it would grain put up in that way.

Mr. Hyde—We do not do anything about that in the spring and summer. It does not grain until winter. However, honey that we put up during the fall, that we do not expect will be immediately consumed, we heat the extracted honey and seal a large amount with sealing wax, and it keeps all winter.

(Continued next week.)

Contributed Articles

"Getting Both Increase and Honey."

BY W. W. M'NEAL.

WRITING from Knox Co., Ills., August 8, on page 600, Mr. J. E. Johnson tells of his success at getting both increase and honey. He says that he began the season with 12 weak colonies in a starved condition, but by judicious feeding in early spring he increased them, by natural swarming, to 50 strong colonies, secured 1200 pounds of comb honey, 200 pounds of extracted, and—oh, my! there were nearly 1000 pounds more that would soon have to come off the hives! Verily, truth is sometimes stranger than fiction, and to write those figures, even in quotations, makes me feel as if my pen was taking a sheer on me.

Allowing that his bees finished only 800 pounds of the 1000 pound, this would give a total of 2200 pounds, or an average of 183½ pounds to the colony, spring count, previous to the date of his letter. Judging from what he says in the 4th paragraph, we are led to infer that swarming did not begin earlier than June 15, and possibly not so soon as that. This being the case, then practically none of the

young queens were old enough to gather honey prior to the date of Aug. 8. Not being supplied with ready-drawn combs, the young queens were, of course, confined to a very limited amount of brood-comb for several days after they became fertile; hence we must base our figures on the count of 12 colonies for the number of pounds of surplus honey obtained.

But since this great amount of honey—2200 pounds—represented the joint efforts of the 12 colonies, the increase of 38 swarms was from only 11 colonies! One colony did not swarm because he took so much brood from it that it had no desire to swarm. This one filled 90 sections, so he thinks, and at the time he was writing they had 90 more nearly finished, which was 30 sections better than the best work of any of the swarms. A similar treatment of them all would have made the average only $3\frac{1}{2}$ pounds less of honey, notwithstanding that the increase from that one colony was made much earlier in the season when it could ill afford to spare the brood and bees. The nuclei, we are told, built up to normal in strength.

Now, the question is: Why does Mr. Johnson lay special stress on his manipulation of the 11 colonies, with all the attendant vexations of such rampant natural swarming, when he could have avoided all that, and accomplished practically as much in increase of colonies and honey obtained by managing all of them as he did that one colony? We have it from his own statements that the method of artificial increase was really superior, for it gave in addition, virtually, freedom from the apiary.

Had Mr. Johnson practiced this method on the 12 colonies, using full sheets of foundation in the brood-chamber of the old colonies, in the place of the combs removed, and then given wired frames with starters to all nuclei, I think he would have found it to be the better way, at a very slight additional expense. Moreover, all his colonies would have been in far better condition at the close of the season as regards worker-comb. The probabilities are that much of the comb the swarms built in the brood-chamber of the new hives was drone-comb, which is, at best, a very undesirable state of affairs.

Another point in this connection was his manipulation of those extracting supers with two-inch strips of foundation in the frames. According to the rule of all good bees, and bad bees, I have had anything to do with, this would have resulted disastrously, for what comb was built beneath the foundation would have been drone-size of cell. The queen would hasten up there and consume valuable time laying drone-eggs, which become a burden to the colony as soon as hatched, and cast a shadow across the glittering rays-of-success.

For the purpose of enlarging the brood-chamber and promoting a rapid numerical growth of the colony, I would have advised the use of a case of combs; and, as second best, full sheets of foundation in the frames. The extracting case then materially enlarges the brood-chamber at a time of year when its occupancy by the queen results in a larger force of workers for the harvest. Instead of putting the first comb-honey super on top of the extracting super, it is better, in most cases, to place it between that and the brood-chamber proper. The bees will then quickly begin work in the sections, thus overcoming the tendency to flush the brood-chamber with honey. Large numbers of bees that otherwise would remain below to crowd upon the brood-combs are gotten out of the way in the best manner possible. The reverse of this would largely be the result when managed as Mr. Johnson did it. Besides, young bees will not enter an empty extracting super practically any sooner than they will a comb-honey super with fences; and when the combs are finished they are unfit for the purpose named. The honey they contain must be extracted and sold for less than if the same had been stored in sections. It would be, on the whole, a less profitable way of managing an apiary.

I will here state that a queen-excluding honey-board is really indispensable whenever desired to leave the extracting super on the hive until the brood hatches from it. The old queen must be kept in the lower story; but the honey-board should be placed between the extracting super and the section super, and not immediately above the brood-chamber, as in the usual way. It does not then interfere with entrance into the first super, but it does have a tendency to discourage the storing of honey in the upper one. When the extracting case is thus used, and left only long enough to start the bees to work in the sections, the honey-board is not absolutely necessary. But if the case remained on the hive, and the queen were to pass through the comb-honey super and again enter it, she would probably stay

there until queen-cells were capped below, and swarming resulted. In 10-frame hives there is very little danger of the queen going above; and the real advantage of the honey-board in either an 8-frame or 10-frame hive is to prevent such an unhappy occurrence as the killing of the mother queen by the virgin reared among the isolated combs of the extracting super. The presence of queen-cells in the super will not cause swarming under the same pressure, and a virgin queen will often be allowed to emerge from her cell and destroy the laying queen at a time of year when her loss would mean the ruination of the colony for surplus honey.

Mr. Johnson's manner of giving only one super to prime swarms that were large enough to fill the brood-chamber and super "chock-full," is simply unique in its being a dangerous plan to follow. The orthodox way of treating swarms, is to give an abundance of room at time of hiving them, and then contracting "in two or three days" to the actual needs of the bees, or what the floral conditions seem to justify. The swarm issues, as a rule, because of an overcrowded and heated condition of the brood-chamber, and if the same conditions prevail in the new hive while the swarming fever is at its highest, the swarm is almost certain to decamp.

We must, however, concede to our friend the honor of securing a larger crop of honey, according to the figures, than that of our own this year. But we think that when he has given the two methods—natural and artificial increase—a more extended trial, he will welcome the latter with its many advantages, and also see that his success in the present case was largely in spite of his efforts at hive-manipulation.

Scioto Co., Ohio.



The Movable-Frame Hive vs. the Box-Hive.

BY DR. C. C. MILLER.

WITH the permission of the Editor, I would like the opportunity of a little talk with "A Bee-Keeper in Virginia," whose communication appears on page 750.

I confess, my Virginia friend, that I am not often so much interested as in the reading of your letter, arising, perhaps, more than anything else from your ingenious way of putting things. If your bill of particulars were to be laid before a farmer, and you should say to him, "There's the bill; now you can take your choice, undergo an expenditure of \$338.18 for four years, or keep on with box-hives without any expense, and still get 50 pounds of surplus from each colony," I think he would hardly be blamed for shying at the expense. But is it put before him in that shape? Honest Indian, did you have it before you in that way when you decided to change from box-hives? Possibly if it had been put before you in just that light, even you might have hesitated. But did you think of it at all in just that way? Does any farmer? If he doesn't, then that's not what glues him to his box-hives.

But why did you stop at four years, or at 50 colonies? He might be so unfortunate as to be like some others, and run up to 500 or 1000 colonies. If only 500, then your annual estimate of \$85 would become \$850. If the \$338.18 didn't scare him out, perhaps the bigger figures might.

Are all the items given to be fairly charged to box-hives? A man could get along without a smoker—some do—even if his bees were in movable-frame hives. Indeed, most of the items you have given can be dispensed with by the man who has movable-frame hives, and I've known more than one farmer who kept his bees in such hives and yet made no outlay different from what he had formerly done with box-hives—although I agree that he might as well have stuck to the box-hives if he had no intention of making use of the advantages offered by the better hives. The fact is, that your items are not necessarily attendant upon the adoption of movable-comb hives. A man may change from box-hives with no other expense except that for hives, and his further expenses—which may be graduated all the way from very little to the fullest expense called for by the up-to-date sort of bee-keeping—must be charged, not to movable-comb hives, but to improved methods of bee-keeping.

You say, "You will understand that I expect it to pay me well (notwithstanding the expense), or I should not have entered on the necessary expense for the next 3 years. But most users of the box-hives couldn't, and wouldn't, stand the expense, even if they knew that they would double or treble their honey crop." That may be true in your locality; others may not be as bright as you in looking ahead,

but, take the country at large, and farmers, perhaps especially bee-keeping farmers, are an intelligent lot, and would not hesitate at an expense that would double or treble their income.

Your suggestion that they would so hesitate, reminds me of the story of the old farmer in Pennsylvania (I do not vouch for the truth of the story, for I am a Pennsylvanian by birth, and have no little respect for the shrewdness of some of those old Germans). Oil was discovered upon the old gentleman's land, and a speculator visited him promptly to buy the land, offering him \$25.00 an acre for it. The answer was, "Why, dot land—I pay \$50.00 acre for it, and it wort' more now." Then the speculator made a graphic picture of the possibilities in that oil-well. Other wells had yielded so and so, and the prospect was that this well would exceed any previous record—a hundred thousand barrels, costing a dollar each, would be wanted in a short time to contain the oil—was the farmer willing to stand the expense? "A hunnert thousand dollar! mine cracious! no; I not got so much money in de world; dot oil-well break me all up; you can have dot land for twenty-five dollars; dot was better as to pay hunnert thousand dollar ven I don't got hunnert thousand dollar."

Perhaps the best proof that the thought of expense does not keep farmers from adopting movable-comb hives is the fact that it has not kept them from it. Thousands of farmers are using the best hives, and in many, if not most, localities box-hives have entirely disappeared. Very likely the chief reason that some in this country are still using box-hives, arises from the fact that they are not yet informed as to the advantages of any other than box-hives.

I still must thank you for your interesting bit of reading, and hope we may have more from your pen.

McHenry Co., Ill.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Putting Back Supers After Extracting.

Mr. Dadant's article, with the above caption, appeals to my interest because I have this year had the experience of J. S. Haag paralleled in my own apiary. The bees refused to clean out the extracted-combs, sealed over empty cells, and, as pointed out by Mr. Dadant, they occupied these supers sometimes, as it seemed, in full force.

Mr. Dadant advises the use of the enamel cloth between stories, or the perforated zinc. As it happened, I had some 10-frame hives covered with the enamel cloths, and the 8-frame hives either had, or had not, perforated zinc between the stories. The zinc seemed to make little difference about their occupying the upper story, and in at least one case I know that the queen was above the zinc after laying had ceased.

The 10-frame hives had their cloths because I did not at first think of giving them frames to clean, thinking they had less need than the 8-frame hives. However, I did, in two cases, give them combs, and in both they made a thorough clean, and they were the only ones that did.

In my case, the extracting and putting back was after the harvest was over, for that ceased suddenly this fall with a hard freeze about the middle of September.

Now, I did what Mr. Dadant would not under any consideration do—I gave the bees the combs to clean in the open air.

It is some years since I got a kink from R. C. Aikin, in the Bee Journal, in regard to open-air feeding. Up till that time I had considered it something to be deprecated entirely, but after he told how to feed, I find it the most practicable way of giving a general feed. The main thing is, when you are feeding, give plenty, and arrange so that all the bees can have easy access. I have never found it to lead to robbing.

Now, it is but a few days since I gave the bees a number of combs to clean up. On no consideration would I like to store them away just as they come from the extractor. Apart from the danger of souring the next crop, they are mussy and disagreeable to handle. As a rule, my bees clean them up nicely in the upper stories, and that is the

way I prefer to have it done. They mend any that may have been broken, and they are so clean that it is a pleasure to store them away.

This year, as I have said, things were different. But we have some warm days here, even at this season of the year. On one of these I took a dozen or more of combs fresh from the extractor, and put them out-of-doors where the bees soon found them, and while they were pleasantly engaged with these I went to the hives for more—the ones they had refused to clean.

There is this to be said about an open-air feed—it puts the bees in a good humor, and any manipulations that have to be made with them are much more easily accomplished than when there is nothing of the kind going on.

Going to a hive, I had to take off the upper story with its combs full of bees, remove the excluder, put back the upper hive-body, shake the bees from the combs, and put these out with the others being cleaned up. Putting them out that way I did not need to be particular to shake off every bee as I otherwise would. Then, that hive is ready for its cloth, quilt and cushion, which I will admit it should have had earlier. Repeat the process until you think there is enough, and, take my word for it, the clean-up will surprise you.

There is much of human nature about a bee. Those combs, while in the hive, were regarded as a possession, but when out in the open they recognize the fact that it is a free-for-all scramble, and that those that work the hardest will get the most.

And a bee can not resist a display of honey, no matter how well its hive is stocked with that article—even as children with money in their pockets will scramble for pennies at a Fourth of July shower, or a Rockefeller pile up the millions, "for the good of the oil business." It's nature.

Custer Co., Nebr., Nov. 12. MRS. A. L. AMOS.

Your experience tallies with ours. There is no way in which you can feel so perfectly sure that the work of cleaning combs will be thoroughly done as by letting the bees have access to them outside their hives, so they feel that they are getting an accession to their wealth.

Where they will do the work properly on the hives, of course that is much the better way.

Your 10-frame colonies made better work than the colonies in smaller hives, quite possibly for the reason that they had more vacant space in the brood-chamber.

You say that feeding in the open air puts bees in a good humor. That's true, while the feed lasts, but when the supply stops, look out!

The danger of starting robbing by feeding in the open air is one that should be considered, but, really, is it as serious as sometimes represented? Is it true that a bee once guilty of robbing never returns to an honest life afterwards? It is true that when bees are fed in the open air they will try to force an entrance into cracks of hives all over the apiary as soon as the supply ceases, but did you never see exactly the same state of affairs when there was a sudden stop of the flow of nectar in the fields? Repeated opportunities for observation on this point seem to show that there is no more danger of robbing after out-door feeding stops than there is after the stoppage of the natural flow.

Mr. Dadant wisely calls attention to the danger of having combs torn to pieces by the bees in their eagerness to get at the exposed sweets, especially if combs are new and tender, and you meet the case by giving enough for all and having it easy of access. That's the plan of the late B. Taylor, and is all right when you can do so. But sometimes you do not have enough for all, and then you must take a directly opposite course—in place of the Taylor plan using the Miller plan, and instead of making the honey to be emptied easy of access, making it so difficult of access that there will not be enough bees crowding upon one single spot to tear the combs. This is accomplished by piling the combs in supers or hive-bodies and leaving an entrance only large enough for a single bee—perhaps more than one entrance if there are enough combs. With this plan there is less danger of robbing, but it requires more time, and the combs should be left until the bees cease giving them attention.

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

EXTRACTING-COMBS IN THE FALL.

I hardly think Mr. Dadant gets entirely to the bottom of the difficulties pertaining to daubed combs after extracting in the fall. Part of the trouble, I am convinced, lies in the fact that a portion of the bees have come to consider themselves as belonging upstairs to such an extent that they are not willing to stay below. As a natural result of this, they don't want all the honey carried away. Worth trying if they wouldn't bring up some to put in a set of perfectly dry combs. I first noticed this fall the following interesting fact: Where the super-combs are mostly drone, with a few of worker size among them, they take the honey out of the drone-comb and put it into the worker-comb. The latter can then be taken out and put through the extractor. Page 663.

PROPER TEMPERATURE FOR QUEEN-LARVAE.

□ A. C. F. Bartz clearly shows a possibility of getting a tender and minute queen-larva soused into a bath a good many degrees too cold. Surely don't do the little thing any particular good, whether or not the harm extends to turning out a poor queen. Right, that comb and all it contains is a little hard and slow to warm up when once it gets cold. Wouldn't a carrying-box carefully made to warm by a lamp be about the proper thing for such operations on cold days? Just give a rest to "Unfold thy bosom, faithful tomb"—or say faithful imbecile asylum. If I'm right, the surfaces of our bodies are not quite warm enough anyhow on such occasions; and anything tucked under our clothes to get heat on a cold, windy time is in the position of being inadequately warmed on one side and decidedly cooled on the other side. Page 663.

DIFFERENCE IN SIZE OF BEES.

Taking the exact weight of two samples of bees in exactly similar conditions, is there ever so much difference from normal as 25 percent? I rather doubt it. We often feel inclined to say so at a casual glance—"These bees are a great deal smaller, or bigger, than mine." Usually a case of extreme contraction or distension, and not much else. Page 664.

HOW USE A BINGHAM KNIFE—FOOL QUESTION.

The problem, which side of the Bingham knife to hold next the comb, rather stirred me up. Which end of a spoon would you stick in your mouth? You can put in either one—and you can't use the wrong side of a Bingham, except on small combs and around the edges. Handle is set off on the off side when the knife is made. Next we shall be discussing whether to drive the nail with the wood or the iron of the hammer—and whether to remove the lid of the honey-pail or punch a hole through the bottom. Isn't it sometimes justifiable to return a pleasant smile and say, That comes pretty near being a "fool question?" Too great consideration for the great F. Q. gives the disagreeable impression that the Journal itself must be set to the key of F. Page 666.

HOW TO USE A BEE-TENT.

On page 679 we read: "Bees always attack your tent from the side where the wind blows." Then follows the very proper hint to do our going out and in on the other side. My guess is, that the meaning intended there is the opposite from the one we would first take from that wording. Through a tent which stands in the wind considerable air is drifting, and carrying the smell of honey out on the lee side. I should expect bees to besiege where the good smell came out.

PERHAPS THEY WERE SOLITARY BEES.

I wonder if "Virginia" was not mistaken about the insects he saw entering his hives being yellow-jackets. There are, I believe, solitary bees that enter hives mainly to lay eggs, and have their young reared in cuckoo fashion—developed, born and bred to the sly art of getting past the guards, there is less wonder that they succeed. I never heard of there being enough of them to accomplish any great harm. Page 682.

HOW CAN THE BLIND LEAD THE BLIND?

A cry to me for help, eh? Another conspicuous case of seeking help in the wrong place, and ignoring the right one. If Mr. Beverlin will look on page 680, he will find a most gracious offer of help—quite adequate for the cure of single-blessedness bread and the resulting wild mathematics. Page 685.

THE TELEPHONE IN SWARMING TIME.

Yes, Yon Yonson, those new rural 'phones, to call us away in swarming-time, to hive other people's bees while our own go to the woods, we shall long for a 'phone so improved as to get out of order in swarming-time. Page 687.

Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

Keeping Brood-Combs.

On page 585, you advise me to unite my bees in the spring. You will please inform me what to do with the hives (from which I take the bees) containing brood-combs partially filled with honey and larva? By the time I am ready for them for swarms they are ruined by the moth.

TENNESSEE.

ANSWER.—For fear some one may misunderstand, let me preface my answer by saying that in general spring is not so good a time to unite as fall, for in general bees are united because colonies are too weak, and it is better to unite them in the fall for the sake of better wintering. But when normal colonies are to be united merely because the owner desires to reduce the number, then spring is the best time; because if the uniting is done in the fall some colonies may die in wintering, and the number of colonies thus become less than desired.

The best thing to do with the combs depends somewhat on circumstances. Perhaps this will do: When you unite, let the united colony have the two stories and all the combs of the two colonies united, and leave them thus till about time to begin surplus work, when you will take away one story and half the combs, leaving those containing most brood. If swarming begins with you about the same time as the harvest, that will leave only a short time for the combs to be kept, and perhaps they would need no attention till needed for swarms. If, however, you thought it necessary, you could pile them up and treat them with bisulphide of carbon. If working for extracted honey, there would be no need to take the combs from the bees at all.

If anything in your conditions make my answer inapplicable, give me the conditions and I'll try again.

By way of postscript, it may be well to add that at the time of taking away the combs it may happen that there may be so much brood that you will be compelled to take away combs containing more or less brood. In that case, after giving brood to any colony which has not brood in all its combs, pile up the brood on one or more colonies five or six stories high, having a queen-excluder over the first story. Such a colony is not likely to swarm, and by the time you have used the extra stories for swarms you will have a powerful colony for field-work.

Best Hive—Hybrid Bees—Foul Brood.

Last spring I commenced my first experience in bee-keeping with one colony of black bees. They were in an 8-frame hive, frames being 16½ inches by 11 inches, with 7/8 inch top-bar. They gave me 2 swarms this season, the first storing 12 pounds of surplus honey. The swarms are in hives of the same size. I wish to produce both comb and extracted honey, but mostly comb, as that is in greater demand here. I do not know whether to adopt a hive with a more shallow frame or not. It is better to have a deep frame for winter, I suppose.

1. What hive would you adopt, i. e., a frame of what depth, and how many frames to a hive? I want to adopt a

good hive for wintering and surplus honey, and then "stick to it." Perhaps the one I have is all right.

2. What do you think of the long-tongued or red clover queens? I have seen them advertised so much.

3. Is there any danger of getting foul brood in one's apiary by sending away for queens?

4. May two kinds of bees be kept in the same apiary for 2 or 3 years without producing hybrids?

5. If so, how?

6. Are hybrid bees usually crosser than others?

7. When foul brood is found in an apiary where it has never before been known, what usually causes it? Is it carried by the bees from places where the disease is raging?

8. Some one who wrote for the American Bee Journal a few years ago, claimed that foul brood is caused by taking too much honey from the bees and then feeding sugar syrup. Is this true?

9. Is foul brood more prevalent among some races of bees than others?

10. If so, what race seems affected most?

NEW YORK.

ANSWERS.—1. Your hive is excellent for wintering, but for comb honey it is doubtful that you can get best results with so deep a frame. Some think that even 9½ is too deep. You ask what I would adopt. I'll tell you what I have adopted. I do not assume to know what is best in everything, but with the light I now have I am using the 8-frame hive with outside measure of frame the common size, 17½x9½, and find it works well for comb honey. It will also do well for extracted honey, although a larger hive would be better. Indeed, unless you intend to give close attention to your bees, a 10-frame hive would be better even for comb honey.

2. I think there is an advantage, and there may be a very great advantage in long tongues. In actual practice, however, I have come to doubt whether it is still worth while to pay any attention to the length of the tongues. Breed from the stock that gives best results. Very likely that may in most cases give long tongues, but whether tongues are long or short, we want the bees that will get the most honey.

3. Not much; I don't think many men would be dishonest enough to send out queens where there was any danger of sending foul brood as an accompaniment. As a matter of safety, however, it is not a bad thing to burn cage, bees and all, saving only the queen.

4 and 5. The thing is not practicable.

6. Yes, but not always.

7. Yes, it is carried in the honey stolen from diseased colonies.

8. Foul brood is due to the presence of the microbe bacillus alvei; neither spores nor bacilli of this kind are in sugar.

9 and 10. In Australia they say that the disease is more troublesome among black bees than Italians.

Wired Combs from Starters—Unsealed Sections—Bee-Sheds—Other Questions.

1. In hiving a swarm with only starters in frames, can the frames be wired so that the completed combs will be as strong and straight as if full sheets wired were used at the start?

2. Is there any way of getting unsealed honey out of sections without using an extractor, and without injuring the combs? And can unsealed honey be left in the sections without spoiling till spring?

3. How soon after the first swarm has issued should the young queen in the parent hive have her wings clipped? or in other words, how soon after the first swarm issues is the young queen fertilized?

4. How soon after a first swarm has left should the parent hive be given a super with sections? (I take the super that was on the parent hive and put it on the swarm at once.)

5. Will it be disadvantageous having sheds over the hives? Sheds are 5 feet high in front and 6 feet high in the rear. The temperature goes as high as 100 degrees in the shade here. I have little or no shade in the apiary.

6. What is the length of the main honey-flow, ordinarily, in central Virginia?

7. Could any of the eucalyptus trees be planted satisfactorily in central Virginia? The temperature occasionally goes below zero here.

8. Would it pay, not only for honey but for gentleness, too, to insist on having all pure Italians in an apiary of 50

colonies, by killing all hybrid queens as soon as discovered, and replacing immediately with tested Italians? There are very few either wild or domesticated black bees in the vicinity. (I rather expect you will say, "Decidedly not," to this question, as you seem to think very highly of good hybrids.)

9. Has Virginia any bee-inspector?

10. Does it matter how soon in the spring supers with full sheets of foundation are put on strong colonies?

11. Is it not better to put them on a little too soon than a little late?

12. When absolutely no more increase is desired, would the following plan be likely to succeed? Queens are all clipped. Return first swarm after catching clipped queen. Put clipped queen in safe place for an hour or two. Open the hive and kill the young queen, and destroy all cells and queens about to hatch, then give them the clipped queen back again. Destroy all drones in the swarm to allow more room for the workers. Watch the colony and destroy all cells as fast as they appear.

VIRGINIA.

ANSWERS.—1. No; you can not be sure that the bees will build the septum directly on the wire.

2. No, unless it be to let the bees empty it. Generally, honey unsealed in sections will be granulated by spring, but if kept in a place sufficiently hot it will keep.

3. A queen may be clipped as soon as she lays, no matter when fertilized. The young queen may lay 16 days or more after issuing of prime swarm. In practice, it is well not to look till three weeks after swarming.

4. As soon as strong enough, which may be in a few days, and may not be at all. Generally, it is well to throw all the flying force into the swarm a week after swarming, in which case not much super-work can be expected from the mother colony for some time, if at all.

5. Sheds would probably be all right if not closed too much when hot.

6. I don't know. Perhaps the best way to get an answer from some one who knows is for me to guess, so I'll guess that the average length of the main flow is five weeks.

7. Doubtful, but it might be worth while to try.

8. "Decidedly not." Other things being equal, I'd rather have pure stock, but I would not secure it "by killing all hybrid queens as soon as discovered," unless there was already a great preponderance of pure blood. I'd favor the continuance of those which showed the best performance, and you are likely to find these among mixed as well as pure bloods.

9. I think not.

10. Yes; if put on too early there is a waste of heat at a time when heat is important.

11. Emphatically, yes. A little too early is just right.

12. No.

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FROM MANY FIELDS

Selling Honey in a Home Market.

Having had considerable experience selling honey to the consumer, I write for the benefit of beginners. I have been producing and selling honey, both comb and extracted, in Page County, since 1877, and have shipped very little to the wholesale houses. I find the home market better. Of course we cannot expect to sell the whole crop at once, but I frequently sell as much as a hundred pounds of extracted honey at a time to a consumer, but a dollar's worth of comb honey is as much as can usually be sold to the consumer at one time.

Considerable comb honey can be placed with the grocers and will lessen cash outlay for provisions, at least it is advisable to keep them supplied with what they can use. I think it is a good plan to keep honey on hand at all times, as I have more call and get better prices after others have sold out, and in off-years I produce about two pounds of extracted to one of comb, and find the production of extracted much more satisfactory than comb.

I have tried selling from house to house, on the sample plan, and have succeeded very well, but as I do not like canvassing I do not resort to this p'an excepting when a large crop makes it necessary to prevent one crop lapping over another; this has seldom been the case. I have some customers in other States who order from 50 to 100 pounds for home use, when I can sell at 9 or 10 cents per pound.

This has been the most favorable season we have had for several years; it gave me over 5000 pounds from a start of 50 colonies in the spring, and 20 bought during the season, and run largely for queen-rearing.

I have put 126 colonies into cellars, 35 of them queen-rearing colonies on small combs, with 21 colonies packed in double-wall hives on the summer stands. The colony on scales gave 265 pounds of extracted honey for the season. The best day was July 8, which gave 15 pounds net gain for 24 hours; to make this gain they must have carried over 20 pounds, as I find a shrinkage of 3 or 4 pounds during the night after a good day's work.

J. L. STRONG.

Page Co., Iowa, Nov. 26.

Castor-Oil and Honey—Peddling.

I notice the editor desires the bee-keepers to tell the new kinks they have learned. I learned one just the other day, when I was peddling honey. A man said he tried to get one of his little boys to take castor-oil, and he could not get it down him. He then mixed it with honey, and had no more trouble. How easy! I wish we could fix up all our troubles and make them sweet as honey.

I suppose most bee-keepers have a cloth over the top of the hive, to keep the bees from sticking the cover fast, and they are always eating it full of holes. Mine don't. I use mostly pieces of gunny-sacks, but old ingrain carpet without any holes is dandy. Cut your pieces to fit, then give each piece a good coat of lard—old, rancid lard is as good as any. The bees will coat it over with glue and never gnaw a hole in it. Warranted; patent not applied for.

I had 1500 pounds of extracted honey and 200 pounds of comb honey from 22 colonies, spring count, and increased to 32 colonies.

I have been in business here only 2 years. I learned the trade in the West, where I had no trouble at all to keep the bees from swarming. I think it must have been the cool nights; here it is altogether different, but I think I can keep the most of it down.

I peddle out all my honey. The best way I have found to peddle extracted honey is to have a heavy galvanized-iron can that will hold 12 or 15 gallons (that would be 144 or 180 pounds of honey), with a pair of drop handles riveted to the sides near the top, the cover to fit over the top and drop down about 2 inches with a handle to the top of it. Then getting

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42A11t

a self-measuring molasses-gate—that is far ahead of the common honey-gate—and have it soldered very solid to the can; have the bottom slant about $1\frac{1}{2}$ inches from back to front. Make a solid box 10 inches high for the can to rest on, with cleats on top to keep the can from slipping. Bolt the box fast to a low spring wagon, just behind the seat, and tie the can solid from each side. Then you are ready.

I think I have the best wire-imbedder that is sold, or that I have heard of, so far. I have used it 5 years, but I will tell you about that some other time.

W. A. MOORE.

Delaware Co., Ohio, Nov. 17.

Best Hive for Women—"Baching."

On page 728, the question is asked: Which is the best hive for women, the 8 or the 10 frame? I believe this is altogether a question of locality, and whether we wish to work for comb or extracted honey. In this locality the 10-frame hive becomes a nuisance when worked for comb honey, because the bees store so much honey below in the frames that the queen is almost crowded out. I use the 8-frame size entirely, and in the fall I extract 2 frames of honey from the sides of the brood-chamber, leaving the bees on 6 combs for winter. I have practiced this for several years, and I find that 6 combs are amply sufficient for their winter stores, and then I have 2 empty combs to give the queen in the spring, when otherwise they would be filled with candied honey and be comparatively worthless.

I believe in most localities, that with the above management, bees would starve before spring on 6 combs, but here the bees consume very little honey during the winter months, owing to the very even temperature—just a little too cold to start brood-rearing.

I have a plan of management which I have practiced for years, which is in my estimation far ahead of brushed or "shook" swarms for preventing increase and keeping all the force together at work in the sections, but I will have to defer this for another article.

I am surprised at C. H. Koentz for asking the Editor to help him out of his troubles. If he can't get a wife it's his own fault. He lives in a locality where the ladies out-number the men, 3 to 1, and he can find plenty of them that are "willin'." If he were baching out here in the West, he would have just cause for complaint. What few girls we have here are so independent that there is no doing anything with them. Now, if the Editor is going to take a hand, please don't forget us Westerners. I have been "baching" for 9 years.

I have 300 colonies of bees.

W. C. GATHRIGHT.
Donna Ana Co., New Mexico, Nov. 16.

Bee-Moth and a Bee-Hat.

Two years ago I brought 3 colonies of bees; one of the colonies swarmed 4 times last season, but did not swarm at all this summer, and only stored honey enough to last them through the winter. From the colony that did not swarm I took 50 or 60 pounds of good honey, and they died before spring with plenty of stores in their hives. I fed the late swarms, as the season was not good in our locality. I got 3 colonies out of 7 through. I divided and made 2 colonies, and the same colony that I took the two from swarmed later on, and I caught on, so I still have 7 for winter again. I have made good bee-houses to put the hives in, and leave them there winter and summer.

Some time ago I noticed in the Bee Journal that one of the bee-keepers wanted to know what made the moth. It is the butterflies; they alight down on the bees when lying out before swarming and deposit their eggs on the bees, so when the bees go in the hive to eat, the eggs will fall off of them in the hive, and are hatched out by the warmth, and so the moth is there. I kept all the butterflies killed off this summer, and am not bothered any more.

I will tell you what kind of a bee-hat I have. Take green screen-wire, one yard in length; cut some off the side, so it will be only two



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or three inches above the head; sew it together by lapping a little. Sew some double thin goods on the top for a crown, then sew a skirt to the hat, and put a good, strong string on the skirt near the middle of the back and tie around the waist, to keep the hat from tipping off. Also, have a draw-string in the bottom of the skirt and draw around the waist. Put armholes in it, with sleeves to draw on, and tie just above the elbow. Then with good gloves, and pants or overalls tied at the bottom, you are safe from bee-stings.

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A Farmer's Hive—Report.

An all-around farmers' bee-hive, good for men but not for women, is 18 inches long by 18 inches wide, and 12 inches high, with a good super to hold 40 sections $4\frac{1}{4}$ by $4\frac{1}{4}$ by $1\frac{1}{2}$.

My honey crop was 500 pounds of nice white comb honey, while my neighbor bee-keepers got none. GEORGE KERR.

Kent Co., Mich., Nov. 27.

A Growing Bee-Keeper.

When I first subscribed for the Bee Journal I had only one colony of bees, and knew less about producing honey than they did. That was in the spring of 1900. This colony was the united forces from three trees in the fall, and fed on sugar syrup exclusively. I kept the queen 3 years. In 1902 I produced 1200 pounds of honey; 1903 finds me with a harvest of $1\frac{1}{2}$ tons of honey, in charge of 110 colonies of bees, and a local trade in bee-fixtures started. The American Bee Journal has been "the whole thing" to me. H. H. CHASE.

McLeod Co., Minn., Nov. 24.

Beedom Boiled Down

Fighting Robber Bees with Fire.

F. L. Morrill had a bad case of robbing during a very hot spell. His account of it is given in Gleanings in Bee-Culture, and is in part as follows:

The bees were crazy, and began stinging before I came within a quarter of a mile of them. The air was full of mad, stinging bees. I soon found that it was the worst case of robbing I had ever heard of. The whole yard of 180 colonies was demoralized. Some of the combs had melted in the extracting-supers; and as it was at a time of year when there was no flow of honey it set the bees to robbing. I did not dare to close the hives up entirely, on account of the heat; but I immediately closed the entrances so that only one bee could go in at a time, and then I tried everything that I had ever heard of to stop robbing, but with no success. The next morning I procured a brazing torch, such as painters use to burn off old paint, and taking a supply of gasoline, I went for the robbers. I went from hive to hive, throwing the flame on them as I went, wherever I found them trying to get in. They were gathered in great bunches on the now one-beeway entrances. I soon had to cover my hands, as this seemed to make them so mad that they would tackle even the torch. They objected to having their wings burned off, but I was in no mood for leniency. I worked nearly all day in this manner, and along in the afternoon had things somewhat quiet again.

The next morning I used a kerosene-torch with just as good results, but I did not find many robbers, and the next day things were in normal shape again.

Roofs for Hives; Steel Roofs Short-Lived.

It is a very difficult matter now to get the old-fashioned iron in roofing-tin, the same as we used to get years ago. Iron made by the old process would last many years longer

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Langstroth on... The Honey-Bee

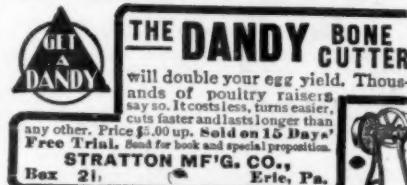
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for roofing than the present steel made by the new process. Indeed, builders and contractors have come to recognize the fact that the new steel roofings, unless galvanized, are very short-lived. The modern method of making steel seems to take out some elements that protect it from rust. One would naturally suppose that painting this steel, and keeping it painted, would protect it thoroughly, but such is not the case. Some of the modern steel roofs that we put on our buildings rust right under a good coat of paint. An old contractor said to me the other day that he would never again recommend to his patrons steel roofing, as the asbestos, magnesia, fabric, or gravel-and-tar roofing were more durable.

And this brings me to the question of the roofs for hives. Unless the new modern steel is galvanized, it probably will not last as long as ordinary cheap paper; and an intending purchaser had better make his selection from covers made entirely of wood, or wood covered with paper, cloth soaked in white lead, or galvanized steel. Do not use tin, if you do not wish to have your roof rust in a short time.

A very good substitute for tin is muslin soaked in white lead. I saw some excellent covers protected with this material, in Colorado, that had been in use several years, were good then. The cloth will take up the oil; and if it is painted occasionally it will outlast tin a good many times over; and, what is of considerable importance, it is much cheaper. —Editorial in Gleanings in Bee-Culture.

Control of Fertilization.

This that has been so earnestly sought after, and which seems so difficult of attainment, appears to be losing ground as to its desirability. The following Stray Straw from Gleanings in Bee-Culture shows the wind blowing in that direction :

Thinking it over carefully, I am inclined to lean toward the belief that entire control of fertilization might be a loss rather than a gain. If I can have control of the colonies that rear drones in my own and neighboring colonies, I believe that's all the control I want. In the mad chase after virgin queen in the upper blue, the "best man" will win. If the choice was left to me I'm afraid I'd make a bungle—[I am not sure but you are right. Even if we could mate successfully in a big tent, there are some hand-picked drones, apparently good, lusty fellows, that would make poor progenitors. It is getting to be the practice nowadays to rear drones almost ex-

A New Bee-Keeper's Song—

"Buckwheat Cakes and Honey"

Words by EUGENE SECOR.

Music by GEORGE W. YORK.

This song was written specially for the Buffalo convention, and was sung there. It is written for organ or piano, as have been all the songs written for bee-keepers. Every home should have a copy of it, as well as a copy of

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Written by

EUGENE SECOR and DR. C. C. MILLER.

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144 & 146 Erie St., CHICAGO, ILL.

clusively from one or two choice queens in a queen-rearing yard, then kill off the useless ones, or keep them from developing. By so doing, don't we nearly control the parentage on both sides? And if the drone with the greatest wing-power is the best man, possibly he is strongest in other ways. In one of our yards during the past summer, the major part of our drones were reared from one queen—a queen whose bees make a big record in honey a year ago. The virgins of the same yard were reared from other queens whose bees did equally well. I had not thought of it before; but it strikes me the plan comes pretty near being equal to the "tent" plan of mating: for suppose we had a mammoth tent in successful operation, we would turn those same drones loose into that tent. Perhaps the really best man might weary himself to death to get out, leaving his less active inferior brother to perform the service. The question hinges down to this: Would hand-picked drones be better than Nature-picked drones? Nature works on the "survival of the fittest," and that plan has been working for thousands of years.—ED.

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CONVENTION NOTICES.

New York.—The Fulton and Montgomery Counties Bee-Keepers' Society will meet at the Central Hotel, Market Street, Amsterdam, N.Y., on Tuesday, Dec. 22, 1903, at 10 a.m. This will be the regular business meeting of the Society for electing officers, payment of annual dues, and any other business which may come before this meeting. Annual dues, \$1.00, which also includes a membership in the State and National Associations.

T. I. DUGDALE, Sec.
F. P. JANSEN, Pres.

Missouri.—The Missouri State Bee-Keepers' Association will meet in Mexico, Mo., Dec. 15, 1903. J. W. Rouse will act as host to direct the attendants to the hall, which is free to all who desire to attend. Board may be had at the leading hotels at \$1 to \$2 a day. Come, everybody who is interested in bees and honey. Let us have a big meeting. We now have 51 paid-up members. Let us make it 100. Procure certificates from your local railroad ticket agents when you purchase your tickets. It may be you can return for ½ fare.

W. T. CARY, Sec. J. W. ROUSE, Pres.

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Mail sample and state lowest price delivered Cincinnati. Will buy FANCY WHITE COMB HONEY, any quantity, but must be put up in no-drip shipping-cases.

O. H. W. WEBER,
2146-48 Central Ave., CINCINNATI, OHIO.
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White Clover Extracted Honey, which was all taken from upper stories with a queen-excluder between, and the combs were nearly all sealed solid before extracting. It is very thick, and has that fine rich flavor that only honey thoroughly ripened in the hives can have. I would like to obtain a few more customers who would appreciate a fine article. Price, in new 60-lb. cans, on board cars here, cash with order—one can, 8½c a pound; 2 or more cans, 8c; sample, 8c. References: George W. York, the A. I. Root Co., and the Chatfield National Bank.
49Atf C. MONETTE, Chatfield, Minn.

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That advertising in the best papers costs more is true, but it is equally true that such advertising is sure to bring greater returns.—Printers' Ink.

HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, Nov. 7.—The supply of comb honey is large, and sales are being forced, so that it is a little difficult to give accurate figures. Sales are not easily made of fancy at anything over 13c per pound, with less desirable grades selling lower. Extracted, white, brings 6@7½c, according to kind, flavor and package; amber, 5@6½c. Beeswax, 28@30c.

R. A. BURNETT & Co.

PHILADELPHIA, Nov. 9.—Honey arriving very freely the last week and prices little easier. This month is best month in the year for demand of comb honey. We quote fancy white, 16@17c; No. 1, 14@15c; buckwheat and mixed, 13c. Extracted, white, 7@8c; amber, 6@7c. Bright yellow beeswax, 32c. We do not handle on commission.

WM. A. SELSER.

ALBANY, N. Y., Nov. 27.—Honey market some lower since the cold weather and Thanksgiving demand over. We quote: Fancy white, 15c; No. 1, 14@14½c; buckwheat and mixed, 13c. Extracted, steady and quiet; buckwheat, 6½c; clover, 7c; mixed and amber, 6@6½c. Beeswax, 28@30c.

H. R. WRIGHT.

CINCINNATI, Nov. 20.—The demand for comb honey is slower now than it was six weeks ago, owing to the enormous quantities offered on all sides. Fancy comb is sold in single case lots at 14c. The supply of extracted honey is big, although the demand is good. We are selling amber extracted in barrels at 5½@6½c. White clover, in barrels and cans, 7½@8½c, according to quality. Beeswax, 30c.

THE FRED W. MUTH CO.

BUFFALO, N. Y., Oct. 11.—The demand for white comb honey is better than it was. The trade is particular and wants only very white, clean stock. If the wax is yellow from travel-stain it does not sell well, and price has to be cut. Fancy white comb, 14@15c; A No. 1, 13½@14c; No. 1, 13@13½c; No. 2, 12@12½c; No. 3, 11@12c; No. 1 dark comb, 11@12c; No. 2, 10@11c. White extracted, 6½@7½c; amber, 6@6½c; dark, 5½@6c. Beeswax, 28@30c.

W. C. TOWNSEND.

BOSTON, Nov. 25.—Western honey is arriving more freely in our State, causing a slight drop in prices. Fancy No. 1, in cartons, brings 17c; A No. 1, 16c; No. 1, 15c. Extracted, white, 8½c; light amber, 7@7½c; amber, 6@7c, according to quality.

BLAKE, SCOTT & LEE.

KANSAS CITY, Oct. 23.—Receipts of comb honey good; demand good; market easier. Receipts of extracted light. We quote: Fancy white comb, 24 sections, per case \$3.00; No. 1, white and amber, \$2.75; No. 2, \$2.50. Extracted, white, 7c; amber, 5@6c. Beeswax, 25@30c.

C. C. CLEMONS & CO.

CINCINNATI, Nov. 24.—The demand for honey is little better. The prices rule about the same. Extracted is sold as follows: Amber, in barrels, from 5½@5½c; in cans about ½ cent more; water-white alfalfa, 6@6½ cents; white clover, 6½@7½c. The comb honey market is quite lively, and it sells as follows: Fancy water-white, 14@15c. Beeswax in good demand, at 30c delivered here.

C. H. W. WEBER.

NEW YORK, Dec. 4.—Comb honey is arriving in sufficient quantities to supply the demand, and, as to the quality, most of the white honey seems to be off color, more or less. We quote fancy white at 14c; No. 1 at 13c; amber, 11@12c; and buckwheat, 10c. Extracted, light amber, at 6c; white, 6½c; Southern, 55@60c per gallon; buckwheat, 5½c. Beeswax, 28@29c.

HILDRETH & SEGELKEN.

SAN FRANCISCO, Oct. 21.—White comb, 1-lb. frames, 13@14 cents; amber, 9@11c. Extracted, white, 5½@5½c; light amber, 5@5½c; amber, 4½@5c; dark amber, 4@4½c. Beeswax, good to choice, light, 27½@29c; dark, 25@26c.

Market is more quiet than for several weeks preceding, but is fairly steady as to value. Spot stocks and offerings of both comb and extracted are mainly of amber grades, while most urgent inquiry is principally for water-white, the latter being the only kind meeting with much competitive bidding from buyer. Recent arrivals of honey included a lot of 121 cases from the Hawaiian Islands. The bees of the Islands feed mainly on sugar.

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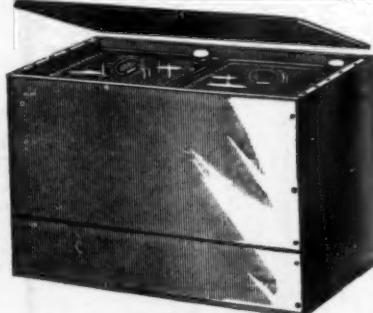
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